

**What is Claimed is:**

1. A particulate suspension comprising a liquid vehicle and phosphor particles dispersed throughout said liquid vehicle, wherein said phosphor particles have a weight average particle size of from about 0.1  $\mu\text{m}$  to about 20  $\mu\text{m}$ .
2. A particulate suspension as recited in Claim 1, wherein said average particle size is from about 0.3  $\mu\text{m}$  to about 10  $\mu\text{m}$ .
3. A particulate suspension as recited in Claim 1, wherein said particulate suspension comprises from about 10 to about 30 weight percent of said phosphor particles.
4. A particulate suspension as recited in Claim 1, wherein said particulate suspension has a viscosity of not greater than about 30 centipoise.
5. A particulate suspension as recited in Claim 1, wherein said particulate suspension has a surface tension of from about 20 to 25 dynes/cm.
6. A particulate suspension as recited in Claim 1, wherein said phosphor particles comprise a metal oxide phosphor.
7. A particulate suspension as recited in Claim 1, wherein said phosphor particles comprise a metal sulfide phosphor.
8. A particulate suspension as recited in Claim 1, wherein said phosphor particles have an apparent density that is not greater than about 20 percent of the theoretical density of the phosphor compound.
9. A particulate suspension as recited in Claim 1, wherein said phosphor particles are composite phosphor particles comprising a phosphor compound and a second phase having a greater hydrophilicity than said phosphor compound.
10. A particulate suspension as recited in Claim 1, wherein said phosphor particles are composite phosphor particles comprising a phosphor compound and silica.
11. A particulate suspension as recited in Claim 1, wherein said liquid vehicle is aqueous-based.

12. A method for depositing a phosphor pattern on an article using a direct-write tool, comprising the steps of providing a particulate suspension of phosphor particles, wherein said particles are substantially spherical and have a weight average particle size of from about 0.1  $\mu\text{m}$  to about 20  $\mu\text{m}$  and depositing said particulate suspension on said article using a direct-write tool.

13. A method as recited in Claim 12, wherein said average particle size is from about 0.3  $\mu\text{m}$  to about 10  $\mu\text{m}$ .

14. A method as recited in Claim 12, wherein said particles comprise metal oxide phosphor particles.

15. A method as recited in Claim 12, wherein said particles comprise metal sulfide phosphor particles.

16. A method as recited in Claim 12, wherein said article is a panel for a flat panel display.

17. A method as recited in Claim 12, wherein said phosphor particles have an apparent density of not greater than about 20 percent of the theoretical density of the phosphor compound.

18. A method as recited in Claim 12, wherein said phosphor particles comprise hollow particles.

19. A method as recited in Claim 12, wherein said direct-write tool is an automated syringe.

20. A method as recited in Claim 12, wherein said direct-write tool is an ink-jet.

21. An ink-jet printing device comprising an ink-jet head and a reservoir adapted to supply a particulate suspension to said ink-jet head, wherein said reservoir comprises a particulate suspension of phosphor particles wherein said particles are substantially spherical and have a weight average particle size of from about 0.1  $\mu\text{m}$  to about 20  $\mu\text{m}$ .

22. A method as recited in Claim 21, wherein said particles comprise metal oxide phosphor particles.

23. A method as recited in Claim 21, wherein said particles comprise metal sulfide phosphor particles.

Sub  
A1  
cured

Figure 1 shows a schematic representation of a 1200-bp DNA fragment. The fragment is flanked by NotI and XbaI sites. The 5' region (approx. 100-400 bp) contains a NotI site, a PstI site, a SmaI site, a KpnI site, a BamHI site, and an EcoRI site. The 3' region (approx. 400-1200 bp) contains a SalI site, an XhoI site, and a NotI site. The fragment is divided into two main regions: a 5' region (approx. 100-400 bp) and a 3' region (approx. 400-1200 bp).

24. A method for forming a flat panel display, comprising the steps of :
- a) providing a flat panel display screen;
  - b) depositing phosphor particles on said display screen, wherein said step of depositing comprises using a direct-write tool to deposit said phosphor particles wherein said phosphor particles have an average size of not greater than about 20  $\mu\text{m}$  a substantially spherical morphology.

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